ADAPTIVE GENERATION OF PERCEPTUALLY UNIFORM SAMPLES FOR PRINTER CHARACTERIZATION

ABSTRACT OF THE INVENTION

A method is provided for adaptively generating perceptually uniform printer characterization samples in a three-dimensional (3-D) signal space. The method comprises: generating lines, each including a plurality of samples, in a printer 3-D signal space; printing signal space color targets; measuring the signal space color targets; generating lines with a plurality of perceptually uniform samples; generating polygon shapes in the 3-D signal space from the perceptually uniform sampled lines; calculating addition perceptually uniform sample points associated with each polygon; and, generating a final target in the printer 3-D signal space using the calculated perceptually uniform sample points. In one aspect, generating lines, includes: for each line, generating a metric distance function; creating a plurality of perceptually uniform samples on the function output axis; and, using the inverse of the metric distance function, mapping perceptually uniform samples onto the line.